

4. **(Original)** The method of claim 1, wherein the beacon frame includes an information element that specifies the rotation sequence and a frequency hopping sequence for a superframe following the beacon frame.

5. **(Original)** The method of claim 4, wherein the rotation sequence is specified in terms of a rotation index and the hopping sequence is specified in terms of a hopping index.

6. **(Original)** The method of claim 5, wherein the hopping index is incremented (with rollover) for each subsequent superframe.

7. **(Original)** The method of claim 1, wherein the hopping sequence is from a pool of hopping sequences that has a minimum cross-correlation.

8. **(Original)** A method of wireless communication that comprises:
 coordinating a series of superframes, wherein the coordinating includes
 transmitting a beacon for each superframe,
 wherein each beacon indicates a frequency hopping sequence to
 be used for communications during that superframe, and
 wherein each beacon specifies a rotation sequence indicative of
 frequency hopping sequences that will be used for
 communications in subsequent superframes; and

using the frequency hopping sequence for each superframe to receive any frames other than the beacon during that superframe.

9. **(Original)** The method of claim 8, wherein each beacon frame includes an information element that specifies the rotation sequence and the frequency hopping sequence for the superframe following the beacon frame.

10. **(Original)** The method of claim 9, wherein the rotation sequence is expressed in terms of a rotation index and the hopping sequence is expressed in terms of a hopping index.

11. **(Original)** The method of claim 10, wherein the hopping index is incremented (with rollover) for each subsequent superframe.

12. **(Original)** A piconet member device that comprises:

an antenna;

a processor coupled to the antenna to receive and transmit piconet communications; and

a memory coupled to the processor, wherein the memory stores software that configure the processor to:

detect beacon frames in the received piconet

communications, wherein the beacon frames

delineate piconet superframes; and

obtain from the beacon frames a rotation sequence for
frequency hopping sequences.

13. **(Original)** The device of claim 12, wherein the software further configures
the processor to:
determine if a beacon frame has been missed, and
use the rotation sequence to determine a frequency hopping
sequence for each superframe following a missed beacon
frame.
14. **(Original)** The device of claim 13, wherein the software further configures
the processor to:
use the frequency hopping sequences determined from the rotation
sequence to receive data frames sent during superframes
following missed beacon frames.
15. **(Original)** The device of claim 12 wherein the software further configures
the processor to:
obtain from a received beacon a frequency hopping sequence for
the superframe following the received beacon.

16. **(Original)** The device of claim 15, wherein the frequency hopping sequence is selected from a hopping sequence pool having a minimum cross-correlation.
17. **(Original)** The device of claim 12, wherein the rotation sequence is selected from a rotation sequence pool having a minimum cross-correlation.
18. **(Original)** A piconet coordinator device that comprises:
an antenna; and
a processor coupled to the antenna to receive and transmit piconet communications, wherein the processor is configured to:
transmit beacon frames that delineate piconet superframes,
wherein each beacon frame includes a field that specifies a rotation sequence for frequency hopping sequences, and
further includes a field that indicates a frequency hopping sequence to be used in an associated superframe.
19. **(Original)** The device of claim 18, wherein the field that indicates a frequency hopping sequence contains a hopping index value that is incremented for each of multiple subsequent superframes.

20. **(Original)** The device of claim 18, wherein the field that indicates a frequency hopping sequence contains an identifier that specifies a frequency hopping sequence from a pool of available frequency hopping sequences.

21. **(Original)** The device of claim 20, wherein the pool of frequency hopping sequences has a minimum cross-correlation.